



# Inventory & Monitoring Program Pacific Island Network Monitoring Plan

## Appendix B: Partnership Opportunities

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### Pacific Island Network (PACN)

#### *Territory of Guam*

War in the Pacific National Historical Park (WAPA)

#### *Commonwealth of the Northern Mariana Islands*

American Memorial Park, Saipan (AMME)

#### *Territory of American Samoa*

National Park of American Samoa (NPSA)

#### *State of Hawaii*

USS Arizona Memorial, Oahu (USAR)

Kalaupapa National Historical Park, Molokai (KALA)

Haleakala National Park, Maui (HALE)

Ala Kahakai National Historic Trail, Hawaii (ALKA)

Puukohola Heiau National Historic Site, Hawaii (PUHE)

Kaloko-Honokohau National Historical Park, Hawaii (KAHO)

Puuhonua o Honaunau National Historical Park, Hawaii (PUHO)

Hawaii Volcanoes National Park, Hawaii (HAVO)

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## PARTNERSHIPS

Monitoring of natural resource condition, or Vital Signs, in the units of the National Park Service (NPS) that comprise the Pacific Island Network (PACN) will only be possible through multiple partnerships. This appendix to the PACN Monitoring Plan identifies select partnerships and partnership opportunities, as *examples* of how Vital Sign monitoring might materialize. No effort has been made to identify all park partners, nor all potential partners – as partnerships are at the core of the NPS mission and operational structure – any attempt to do so would certainly neglect key partners from among the many that exist. A brief summary of partnership efforts in the PACN may also be found at [http://www1.nature.nps.gov/im/units/pacn/pacn\\_partners.htm](http://www1.nature.nps.gov/im/units/pacn/pacn_partners.htm).

Whether partners be Federal agencies, state or local agencies, universities, community groups, or local schools all are needed to some extent to assist in the monitoring of natural and cultural resources within national parks. Partnerships provide access to technical specialties needed to complete natural resources management task, foster better interagency understanding and discovery of common ground, promote innovation of new ideas, strengthen support for dealing with complex issues, and are critical to the success of natural resources management. The following table provides a summary of existing partnerships listed by national parks within the Pacific Island Network.

*Table 1. Summary of selected, existing natural resource management partnerships in the PACN.*

NPS Unit	Examples of Partners
War in the Pacific NHP	<a href="#">Guam Bureau of Statistics</a> <a href="#">Guam Department of Agriculture</a> <a href="#">Guam Environmental Protection Agency</a> <a href="#">University of Guam</a> <a href="#">US Geological Survey</a>
American Memorial Park	<a href="#">CNMI Division of Environmental Quality</a> <a href="#">CNMI Coastal Resources Management</a> <a href="#">University of Guam</a> <a href="#">US Geological Survey</a>
National Park of American Samoa	<a href="#">Department of Marine and Wildlife Resources</a> <a href="#">Oregon State University</a> <a href="#">Asian Institute of Technology, School of Environment, Resources, &amp; Development</a> <a href="#">University of Hawaii</a> <a href="#">American Samoa Environmental Protection Agency</a>
USS Arizona Memorial	<a href="#">US Navy</a>
Kalaupapa National Historical Park	<a href="#">State of Hawaii – Department of Land and Natural Resources</a> <a href="#">The Nature Conservancy – Hawaii Chapter</a> <a href="#">University of Hawaii</a> <a href="#">Hawaii Natural Heritage Program</a> <a href="#">US Geological Survey</a>
Haleakala National Park	<a href="#">State of Hawaii – Department of Land and Natural Resources</a>

	<a href="#">The Nature Conservancy – Hawaii Chapter</a> <a href="#">US Geological Survey</a> East Maui Watershed Partnership <a href="#">University of Hawaii</a>
Ala Kahakai National Historic Trail	<a href="#">University of Redlands</a> Numerous community organizations <a href="#">Hawaii Natural Heritage Program</a>
Puukohola Heiau National Historic Site	Mauna Kea Soil and Water Conservation District <a href="#">Hawaii Natural Heritage Program</a> Royal Court Members
Kaloko-Honokohau National Historical Park	<a href="#">National Oceanic and Atmospheric Administration</a> <a href="#">US Geological Survey</a> <a href="#">Hawaii Preparatory Academy</a> <a href="#">Ducks Unlimited</a> <a href="#">TREE Center</a> <a href="#">University of Hawaii</a>
Puuhonua o Honaunau National Historical Park	<a href="#">Trust for Public Lands</a> <a href="#">US Geological Survey</a> <a href="#">University of Hawaii</a> <a href="#">Massachusetts Institute of Technology</a>
Hawaii Volcanoes National Park	Olaa-Kilauea partnership which consists of: <ul style="list-style-type: none"> <li>• Kulani Correctional Facility</li> <li>• <a href="#">Kamehameha Schools</a></li> <li>• <a href="#">The Nature Conservancy – Hawaii Chapter</a></li> <li>• <a href="#">State of Hawaii - Department of Land and Natural Resources</a></li> <li>• <a href="#">US Fish &amp; Wildlife Service</a></li> <li>• <a href="#">US Geological Survey – Pacific Island Ecosystems Research Center</a></li> <li>• <a href="#">USDA Forest Service</a></li> </ul> <a href="#">US Geological Survey – Hawaiian Volcano Observatory</a> <a href="#">Hawaii Natural Heritage Program</a>

Not identified in table above, are collaborative efforts within the NPS, such as staff and resource sharing between parks, programs, and offices within the state, network, and Nation. At the USS Arizona Memorial for example, the NPS Submerged Resources Center has a long history of partnering with park staff in placing water quality monitoring equipment near the sunken ship, conducting archeological surveys, and providing a variety of technical assistance. This collaboration has greatly expanded the knowledge base of the natural and cultural resources present, their condition, and status and trends.

## EXAMPLE PARTNERS

### WAR IN THE PACIFIC NATIONAL HISTORICAL PARK

War in the Pacific National Historical Park cooperates with the Guam Bureau of Statistics and Planning. The Guam Department of Agriculture has also established permanent transects in the

park for creel (fish) census surveys. Guam EPA monitors water quality along beaches, especially in regards to the sewage outfall near Asan. The University of Guam partners with the park on a variety of research and resource management related projects. Various branches of the US Geological Survey assist the park with wildlife, vegetation, geologic, and water resource programs.

### **AMERICAN MEMORIAL PARK**

American Memorial Park bird monitoring (in the mangrove wetland) is done quarterly by the CNMI Division of Fisheries and Wildlife. Marine and beach (water quality) monitoring adjacent to park lands is conducted by local agencies including CNMI Department of Environmental Quality and Coastal Resources Management. The Natural Resources Conservation Service assists the park with soil and water related programs. Various branches of the US Geological Survey assist the park with wildlife, vegetation, geologic, and water resource programs.

### **NATIONAL PARK OF AMERICAN SAMOA**

Existing partnerships with the National Park of American Samoa include bat, bird, sea turtle, brown roof rat, and vegetation surveys done by the American Samoa Division of Marine and Wildlife Resources. Oregon State University has completed its phase one section on invasive species of the Forest Inventory & Analysis Program. The American Samoan EPA conducts water quality monitoring in stream and coastal areas. The University of Hawaii cooperates on a variety of projects including fishery and coral reef surveys. The Asian Institute of Technology, School of Environment, Resources, & Development established forest monitoring plots at the National Park of American Samoa. These plots now total 10 hectares or more of forest in the park where all the trees have been measured, mapped, and identified.

### **USS ARIZONA MEMORIAL**

The US Navy is the primary partner for the USS Arizona Memorial, as the unit is entirely within the active Naval Station Pearl Harbor and public access is restricted. The Memorial works with several programs within the NPS as well, including the [Submerged Resources Center](#).

### **KALAUPAPA NATIONAL HISTORICAL PARK**

At Kalaupapa NHP, the park works closely with the State of Hawaii – Department of Health in maintaining community operations. The park also partners with the State of Hawaii – Department of Land and Natural Resources in operations of protected areas, as well as with The Nature Conservancy – Hawaii Chapter. The University of Hawaii and Hawaii Natural Heritage Program cooperate with the park to provide long-term research into management strategies, as well as the US Geological Survey.

### **HALEAKALA NATIONAL PARK**

Haleakala National Park has cooperation from State of Hawaii – Department of Land and Natural Resources, Division of Forestry and Wildlife for seabird and forest bird monitoring and from the Nature Conservancy – Hawaii Chapter for plant and animal monitoring. The East Maui Watershed Partnership (EMWP) is an environmental effort between public and private landowners to preserve the native forest and ensure Maui's residents have a clean source of water for domestic, commercial and agricultural uses for current and future generations and interacts

with the park at a variety levels. The US Geological Survey maintains a field office in the park, conducting basic research in cooperation with resource management efforts – as well as close collaboration with the Hawaii Natural Heritage Program and University of Hawaii.

#### **ALA KAHAKAI NATIONAL HISTORIC TRAIL**

The Ala Kahakai National Historic Trail works extensively with local community groups, schools, and other organizations. As a new unit the NPS, the park does not own any land, but rather it's broad focus is to elicit community response to the designation of the trail corridor, and garner support for management, monitoring, and education about the resources associated with the trail. To date, example partnership efforts have been initiated with the West Hawaii Explorations Academy and the University of Redlands (California), with both partners assisting park managers in documenting existing resources.

#### **KALOKO-HONOKOHAU NATIONAL HISTORICAL PARK**

The National Marine Fisheries Service and Hawaii Preparatory Academy collaborate to assist with sea turtle monitoring at Kaloko-Honokohau NHP. The USGS Pacific Science Center conducts a variety of research on coastal shoreline, coral reefs, and marine waters. The TREE Center and Ducks Unlimited partner with the park more on land and in the air, assisting with restoration of native vegetation and native birds respectively.

#### **PUUKOHOLA HEIAU NATIONAL HISTORIC SITE**

Puukohola National Historic Site cooperates with community groups such as members of the royal court organization to complete local projects such as to restore vegetation and hopefully water to the nearby gulches. The Mauna Kea Soil and Water Conservation District is involved in broader watershed monitoring, restoration, and management. The US Geological Survey is also involved in a variety of coastal research and restoration efforts, along with the University of Hawaii and Hawaii Natural Heritage Program.

#### **PUUHONUA O HONAUNAU NATIONAL HISTORICAL PARK**

At Puuhonua o Honaunau NHP, the National Marine Fisheries Service collaborates with the park to conduct sea turtle monitoring. The USGS and Massachusetts Institute of Technology also partner with the park; as has the Trust for Public Lands, helping protect nearby land areas.

#### **HAWAII VOLCANOES NATIONAL PARK**

The Olaa-Kilauea partnership includes Hawaii Volcanoes National Park, the Kulani Correctional Facility, State of Hawaii – Department of Land and Natural Resources, and Kamehameha Schools. The overall goals of the partnership include enhancing long-term survival of native plant communities and natural processes, maintaining a healthy forest ecosystem, protecting and managing large contiguous areas across ownership boundaries, and recovering rare and endangered species.

## ADDITIONAL PARTNERS

There are a variety of opportunities for additional and potential partnerships with National Parks, each offering its own expertise. Identified below are a variety of entities, some previously noted, that are either already working in partnership with units of the PACN or of potential interest for new or expanded partnership opportunities with Vital Signs monitoring.

### NETWORK OR REGION WIDE

[UNEP World Conservation Monitoring Centre](#): provides information for policy and action to conserve the living world.

[UNESCO MAB \(Man and the Biosphere\)](#): develops the basis, within the natural and the social sciences, for the sustainable use and conservation of biological diversity, and for the improvement of the relationship between people and their environment globally.

- [Biosphere Reserve Integrated Monitoring](#): undertakes abiotic, biodiversity, socio-economic and integrated monitoring in the World Network of Biosphere Reserves.

[U.S. Geological Survey](#): serves the Nation by providing reliable scientific information to: describe and understand the Earth; minimize loss of life and property from natural disasters; manage water, biological, energy, and mineral resources; and enhance and protect our quality of life.

- [Pacific Island Ecosystem Research Center](#): for their fields of expertise, including birds, invertebrates, vertebrates, invasive species, and rare plants.
- [Hawaiian Volcano Observatory](#): for their expertise in geology, volcanology, and natural hazards.
- [Hawaii District Office – Water Resources](#): for their expertise in water quality, quantity, and characterization of water resources.
- [Western Region Coastal & Marine Geology – Pacific Science Center](#): collect information, monitor conditions, and distribute findings about geologic hazards, environmental conditions, habitats, geologic processes, and energy and mineral resources
- [National Wildlife Health Center: Hawaii Field Station](#): promote science-based decisions affecting wildlife and ecosystem health

[U.S. Fish and Wildlife Service](#): especially for rare, threatened, endangered, or migratory species

[U.S. Department of Agriculture](#): provides leadership on food, agriculture, natural resources, and related issues based on sound public policy, the best available science, and efficient management

- [US Forest Service: Institute of Pacific Islands Forestry](#): especially Forest Health Inventory and invasive species
- [Animal and Plant Health Inspection Service – Wildlife Services](#): especially invasive species
- [Natural Resource Conservation Service: Pacific Basin Area](#): especially soil and wetland or riparian areas
- Other USDA agencies that conduct natural resource and stewardship efforts

[National Oceanic & Atmospheric Administration \(NOAA\)](#)

- [National Marine Fisheries Service: Pacific Islands Fisheries Science Center](#): administers programs that support the domestic and international conservation and management of living marine resources
- [National Ocean Service: National Marine Sanctuary Program](#): protects specially designated areas of the nation's oceans and Great Lakes for their habitats, ecological value, threatened and endangered species, and historic, archeological, recreational and esthetic resources.
- [National Ocean Service: Coastal Services Center – Pacific Services Center](#): works in partnership with the coastal and ocean management communities of the Pacific, including Hawai'i, American Samoa, Guam, and the Commonwealth of the Northern Mariana Islands, and makes NOAA's products and services available to these communities.
- [National Ocean Service: Biogeography Program](#): develops and implements a plan to produce comprehensive digital coral-reef ecosystem maps for all U.S.States, Territories, and Commonwealths.
- [National Weather Service: Pacific Region](#): provides weather, hydrologic, and climate forecasts and warnings for the United States, its territories, adjacent waters and ocean areas, for the protection of life and property and the enhancement of the national economy.

[Hawaii – Pacific Island Cooperative Ecosystem Study Unit](#) / [Pacific Cooperative Studies Unit](#)

- [University of Hawaii](#)
- [American Samoa Community College](#)
- [University of Guam](#)
- [University of California – Berkeley](#)
- [Bishop Museum](#): records, preserves, and tells the stories of Hawai'i and the Pacific, inspiring our guests to embrace and experience our natural and cultural world.
- [National Tropical Botanical Garden](#): increase and share knowledge of tropical flora
- [The Nature Conservancy – Hawaii Chapter](#): preserves the plants, animals and natural communities that represent the diversity of life on Earth by protecting the lands and waters they need to survive
- [Pacific International Center for High Technology Research](#): is chartered to promote and develop technology appropriate to the marine and tropical environment of the Asia-Pacific region and to assist, facilitate and support its application through technical services, education, and training.

[Hawaii Natural Heritage Program](#) (HINHP): compiles and maintains detailed, comprehensive information on Hawai'i's rarest biological resources. HINHP's mission is to synthesize, interpret, and distribute this information to a wide set of appropriate users toward making a positive impact on biodiversity protection.

[State of Hawaii – Department of Land and Natural Resources](#)

- [Division of Forestry and Wildlife](#): protects watersheds and natural resources, provides outdoor recreation opportunities, builds a sustainable forest product industry, and provides public information and education.
- [Division of Aquatic Resources](#): manages, conserves, and restores the state's unique aquatic resources and ecosystems for present and future generations.



- [Division of State Parks](#): comprised of 52 state parks encompassing nearly 25,000 acres on the 5 major islands. These parks offer varied outdoor recreation and heritage opportunities.

[Northern Marianas College](#): has facilities on Saipan, Tinian, and Rota and offers classes in Liberal Studies, Business, Education, Corrections, Nursing, Film and Television, Sciences, Mathematics & Vocational Education, Social Sciences, and Fine Arts.

Local Schools, from primary through secondary, have long used NPS units as resources for education. At American Memorial Park for example, a local high-school prepared a brochure summarizing the resources found in the mangrove wetland that the park protects. These efforts included site visits, field experience, development of interpretive materials (written brochures, posters, and dioramas), and outreach.

[Kamehameha Schools](#): land owner working in partnership with a variety of parks in the Hawaiian Islands for resource stewardship.

The [Natural Area Partnership Program](#) was established in 1991 by the Hawaii State Legislature and the Governor authorizing the Department of Land & Natural Resources (DLNR) to "provide state funds for the management of private lands that are dedicated to conservation". Lands and waters that might qualify include areas with intact Hawaiian ecosystems, essential habitat for endangered species, and areas within the protective (P) subzone of the Conservation District.

The [Sierra Club, Hawaii Chapter](#) is working to protect and restore remaining native habitat by expanding the state's Natural Area Reserve System, designating additional areas for protection, and enacting legislation to fund fencing, firebreaks, and alien species control within protected areas; prevent continued introduction and spread of alien species in Hawai'i by improving and integrating laws, regulations, and enforcement practices that control alien species

The purpose of the [Youth Conservation Corps](#) program is to further the development and maintenance of the natural resources of the United States by America's youth, and in so doing to prepare them for the ultimate responsibility of maintaining and managing these resources for the American people. Through participation in this program, youth develop an understanding and appreciation of the Nation's natural environment and heritage while parks benefit by accomplishing needed conservation work on park lands.

[Tropical Reforestation & Ecosystem Education Center](#) (TREE Center) has five programs focusing on forest conservation through hands-on stewardship, restoration, and education. TREE engages students of all ages to expand their knowledge of the enormous value of the forests in Hawai'i.

The Hawaii Natural History Association (HNHA) advocates and promotes the discovery, understanding, appreciation, enjoyment, and stewardship of the natural and human history of the National Parks and the Pacific.

### **PARK-SPECIFIC ORIENTED**

At present, the number of identified potential partners for park specific oriented interests is somewhat limited. As a new program and network based, these entities often take more effort to identify, although are nonetheless highly valued partners.

[South Pacific Regional Environment Programme](#), whose area of interest includes the National Park of American Samoa, has a mandate to promote cooperation in the Pacific islands region and to provide assistance in order to protect and improve the environment and to ensure sustainable development for present and future generations.

The general purpose of the [Friends of Haleakala National Park Inc.](#), a Hawai'i non-profit corporation, is to preserve Haleakala's unique ecosystems, scenic character, and associated Native Hawaiian cultural and spiritual resources. The Friends also provide educational, inspirational, and recreational opportunities compatible with preserving the many natural, cultural, and spiritual resources of Haleakala so as to leave them unimpaired for the enjoyment of future generations.

The [Kipahulu 'Ohana](#) is dedicated to the cultural sustainability of the Kipahulu 'Ahupua'a on Maui, Hawai'i through educational programs which incorporate local, national and international partnerships and projects. They conduct cultural demonstrations, restoration projects, self-sufficiency programs, biological diversity projects and other related endeavors. The Kipahulu 'Ohana works to restore the Kipahulu 'Ahupua'a as a model of a living, working, self-sustaining Native Hawaiian community circa 1778-1848, including the construction and maintenance of traditional Native Hawaiian agricultural and aquacultural features, assist in the elimination of alien flora and the reintroduction of native, endemic and Polynesian species, and maintain, increase, and perpetuate a mutually beneficial formal relationship with the National Park Service (Haleakala National Park), State of Hawai'i, Maui County, Sovereign and private entities.

The [Amy B.H. Greenwell Ethnobotanical Garden](#) supports Native Hawaiian cultural traditions of land use and plants and conserves the plant resources of traditional Hawaiian cultural activities. To accomplish this, the garden discovers and shares knowledge of Hawaiian ethnobotany, maintains a repository for native Hawaiian and Polynesian introduced plants, works for native plant conservation, and preserves an archaeological remnant of the Kona Field System on the garden.

The [Kona Outdoor Circle](#) (KOC) is a community based volunteer organization whose mission is to keep Kona clean, green, and beautiful by protecting, preserving, and enhancing the environment for future generations.

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